SAFETY DATA SHEET



Date of issue 11/21/2021 (month/day/year)

Version 2

Section 1. Chemical product and company identification

A. Product name	: SIGMADUR 550 BASE RAL 3003
Product code	: 00446038

B. Relevant identified uses of the substance or mixture and uses advised against

Product use Use of the substance/ mixture	Professional applications, Used by spraying.Coating.
Uses advised against	: Product is not intended, labelled or packaged for consumer use.
C. Supplier's or Importer's information Email Address	: PPG SSC (680-090) 19, Yeocheon-ro 217beon-gil, Nam-gu, Ulsan, Korea Tel: +82-52-210-8222 Korea.MSDS@PPG.COM
Emergency telephone number:	: +82-52-210-8222

Section 2. Hazards identification

A. Hazard classification	: FLAMMABLE LIQUIDS - Category 3
	SKIN IRRITATION - Category 2
	EYE IRRITATION - Category 2A
	SKIN SENSITIZATION - Category 1
	CARCINOGENICITY - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -
	Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
	AQUATIC HAZARD (LONG-TERM) - Category 3

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements Symbol :



Signal word

: Danger

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Section 2. Hazards identification

Hazard statements : H226 - Flammable liquid and vapor. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H336 - May cause an allergic skin reaction. H336 - May cause drowsiness or dizziness. H351 - Suspected of causing cancer. H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver) H412 - Harmful to aquatic life with long lasting effects. Precautionary statements Prevention : P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves, protective clothing and eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling. Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P303 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. Storage : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. Disposal : Wot applicable.		
Prevention: \$\vec{2}202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves, protective clothing and eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling.Response: P308 + P313 - IF exposed or concerned: Get medical advice or attention. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.Storage: \$\vec{1}{2}403 + P233 - Store in a well-ventilated place. Keep container tightly closed.	Hazard statements	 H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. H351 - Suspected of causing cancer. H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver)
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Disposal : Not applicable.	Storage	: F403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	Disposal	: Not applicable.

C. Other hazards which do : Prolonged or repeated contact may dry skin and cause irritation. not result in

classification

Section 3. Composition/information on ingredients

CAS number/other identifiers

CAS number : Not applicable.

Chemical name	Common name	Identifiers	%
X ylene	XYLENES	CAS: 1330-20-7	20 - <30
Talc , not containing asbestiform fibres	Talc, non-asbestos form	CAS: 14807-96-6	10 -<20
n-butyl acetate	N-BUTYL ACETATE	CAS: 123-86-4	5 - <10
ethylbenzene	ETHYLBENZENE	CAS: 100-41-4	1 - <5
Octadecanamide, N,N'-1,6-hexanediylbis	N,N-1,6-HEXANEDIYLBIS	CAS: 55349-01-4	1 - <5
[12-hydroxy-	(12-HYDROXY-OCTADECANEIMIDE)		
2-butoxyethanol	2-BUTOXY ETHANOL	CAS: 111-76-2	0.1 - <1
bis(1,2,2,6,6-pentamethyl-4-piperidyl)	BIS(PENTAMETHYLPIPERIDYL)	CAS: 41556-26-7	0.1 - <1
sebacate	SEBACATE		
cyclohexanone	CYCLOHEXANONE	CAS: 108-94-1	0.1 - <1

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Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Α.	Eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
В.	Skin contact	:	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
C.	Inhalation	:	Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
D.	Ingestion	:	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
Ε.	Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Specific treatments	4	No specific treatment.
	Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Α.	Extinguishing media		
	Suitable extinguishing media	:	Use dry chemical, CO ₂ , water spray (fog) or foam.
	Unsuitable extinguishing media	:	Do not use water jet.
в.	Specific hazards arising from the chemical	:	Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

Section 5. Fire-fighting measures

C.	Special equipment for fire-fighting	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Fire-fighting procedures	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
B. Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
C. Methods and materials for	co	ntainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

	Precautions for safe handling	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
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Section 7. Handling and storage

B. Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

A. Occupational exposure limits

Ingredient name	Exposure limits
Xylene	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	STEL: 150 ppm 15 minutes.
	TWA: 100 ppm 8 hours.
Talc , not containing asbestiform fibres	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	TWA: 2 mg/m ³ 8 hours. Form: fibers
n-butyl acetate	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	STEL: 200 ppm 15 minutes.
	TWA: 150 ppm 8 hours.
ethylbenzene	Ministry of Employment and Labor
	(Republic of Korea, 1/2020).
	STEL: 125 ppm 15 minutes.
	TWA: 100 ppm 8 hours.
2-butoxyethanol	Ministry of Employment and Labor
	(Republic of Korea, 1/2020). Absorbed
	through skin.
avalahayanana	TWA: 20 ppm 8 hours.
cyclohexanone	Ministry of Employment and Labor (Republic of Korea, 1/2020). Absorbed
	through skin.
	TWA: 25 ppm 8 hours.
	STEL: 50 ppm 15 minutes.

protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Use only with adequate ventilation. Use process enclosures, local exhaust **B.** Appropriate engineering : ventilation or other engineering controls to keep worker exposure to airborne controls contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Section 8. Exposure controls/personal protection

	Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
с.	Personal protective equip	m	ent
	Respiratory protection	:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
	Eye protection	:	Chemical splash goggles.
	Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
	Gloves	:	butyl rubber
	Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
	Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Α.	Appearance		
	Physical state	:	Liquid.
	Color	1	Not available.
В.	Odor	:	Characteristic.
С.	Odor threshold	:	Not available.
D.	рН	:	Not applicable.
Ε.	Melting/freezing point	:	Not available.
F.	Boiling point/boiling range	:	>37.78°C (>100°F)
G.	Flash point	:	Closed cup: 25°C (77°F)
н.	Evaporation rate	:	Not available.
I.	Flammability (solid, gas)	:	Not available.

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Section 9. Physical and chemical properties

J. Lower and upper vnlocivo (flan

: Greatest known range: Lower: 1.4% Upper: 7.6% (n-butyl acetate)

explo limits	osive (flammable S)		
K. Vapo	r pressure	:		
			Ingredient name	n

Κ.	Vapor pressure	:		Vapor Pressure at 20°C			Vapor pressure at 50°C		
			Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
			<mark>p≁</mark> butyl acetate	11.25 [·]	1.5	DIN EN 13016-2			
Ε.	Solubility	:	Insoluble in the follow	ing materi	als: cold	l water.	-		
	Solubility in water	:	Not available.	Not available.					
Μ.	Vapor density	:	Not available.						
N.	Relative density	:	1.17						
O .	Partition coefficient: n- octanol/water	:	Not applicable.						
Ρ.	Auto-ignition	:	Ingredient name		°C	°F	Ν	lethod	
	temperature		4-[[4-(aminocarbonyl)phenyl]azo]-N- (2-ethoxyphenyl) -3-hydroxynaphthalene-2-carboxamide>140>284						
Q.	Decomposition temperature	:	Not available.		·	·			
R.	Viscosity	:	Kinematic (40°C (104	°F)): >21	mm²/s (>	>21 cSt)			

- Flow time (ISO 2431) : Not available.
- S. Molecular weight : Not applicable.

Section 10. Stability and reactivity

		-	
Α.	Chemical stability	:	The product is stable.
	Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
в.	Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products.
C.	Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
D.	Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

Section 11. Toxicological information

A. Information on the likely : Not available. routes of exposure

Potential acute health effects

Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Ingestion	: Can cause central nervous system (CNS) depression.

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Section 11. Toxicological information

Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Eye contact	: Causes serious eye irritation.

: Causes serious eye irritation.

Over-exposure signs/symptoms

Inhalation	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Ingestion	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness

B. Health hazards

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
X ylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
-	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2-butoxyethanol	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
bis(1,2,2,6,6-pentamethyl-4-piperidyl)	LD50 Oral	Rat	3.125 g/kg	-
sebacate			0.0	
cyclohexanone	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	11 mg/l	4 hours
	LD50 Dermal	Rabbit	1100 mg/kg	-
	LD50 Oral	Rat	1.62 g/kg	-

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
2-butoxyethanol	Skin - Moderate irritant Eyes - Irritant	Rabbit Rabbit	-	mg 4 hours 24 hours	28 days 21 days
<u>Conclusion/Summary</u> Skin :	There are no data available	on the mixture	itself		•

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Section 11. Toxicological information

Eyes Respiratory	There are no data available on the mixture itself.There are no data available on the mixture itself.
<u>Sensitization</u> <u>Conclusion/Summary</u>	
Skin Respiratory	There are no data available on the mixture itself.There are no data available on the mixture itself.
<u>Mutagenicity</u> Conclusion/Summary	: There are no data available on the mixture itself.
Carcinogenicity Conclusion/Summary	: There are no data available on the mixture itself.
<u>Reproductive toxicity</u> Conclusion/Summary	: There are no data available on the mixture itself.
<u>Teratogenicity</u> Conclusion/Summary	: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Classification	Route of exposure	Target organs
	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
n-butyl acetate	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
Xylene	Category 1		central nervous system (CNS), kidneys, liver

Aspiration hazard

Name	Result	
ethylbenzene	ASPIRATION HAZARD - Category 1	

Potential chronic health effects

General	: Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.

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Section 11. Toxicological information

Reproductive toxicity : No known significant effects or critical hazards.

Additional information

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

Chemical name	Identifiers	GHS Classification
▼ylene	CAS: 1330-20-7	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Talc , not containing asbestiform fibres	CAS: 14807-96-6	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
n-butyl acetate	CAS: 123-86-4	FLAMMABLE LIQUIDS - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ethylbenzene	CAS: 100-41-4	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
Octadecanamide, N,N'-1,6-hexanediylbis [12-hydroxy-	CAS: 55349-01-4	SKIN SENSITIZATION - Category 1B AQUATIC HAZARD (LONG-TERM) - Category 4
2-butoxyethanol	CAS: 111-76-2	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	CAS: 41556-26-7	SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 2 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1
cyclohexanone	CAS: 108-94-1	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 GERM CELL MUTAGENICITY - Category 2 CARCINOGENICITY - Category 2

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Section 12. Ecological information

A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
-butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - Ceriodaphnia dubia	48 hours
2-butoxyethanol	Acute LC50 1474 mg/l Chronic NOEC >100 mg/l	Fish Fish	- 96 hours 21 days

B. Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
-butyl acetate	TEPA and OECD 301D	83 % - Rea	adily - 28 days	-		-
ethylbenzene	-	79 % - Rea	adily - 10 days	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
₩ylene n-butyl acetate ethylbenzene 2-butoxyethanol	- - -		- - -		Readily Readily Readily Readily	

C. Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
X ylene	3.12	7.4 to 18.5	low
n-butyl acetate	2.3	-	low
ethylbenzene	3.6	79.43	low
2-butoxyethanol	0.81	-	low
cyclohexanone	0.86	-	low

D. Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

E. <u>Other adverse effects</u> : No known significant effects or critical hazards.

Section 13. Disposal considerations

 A. Disposal methods
 The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Section 13. Disposal considerations

- **B.** Disposal precautions
- : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	ΙΑΤΑ
A. UN number	UN1263	UN1263	UN1263
B. UN proper shipping name	PAINT	PAINT	PAINT
C. Transport hazard class(es)	3	3	3
D. Packing group	III	III	III
Environmental hazards	No.	No.	No.
E. Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

UN: None identified.IMDG: None identified.IATA: None identified.

F. Special precaution which a user to be aware of or needs to comply with in connection with transport or transportation

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable. to IMO instruments

Section 15. Regulatory information

A. <u>Regulation according to ISHA</u>

ISHA article 117 (Harmful substances prohibited from manufacture)	: None of the components are listed.
ISHA article 118 (Harmful substances requiring permission)	: None of the components are listed.

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Section 15. Regulatory information

	Article 2 of Youth Protection Act on Substances Hazardous to Youth	: It is not allowed to sell to persons under the age of 19.			
	Exposure Limits of Chemical Substances and Physical Factors				
	The following components have an OEL: ▼ylene Talc , not containing asbestiform fibres n-butyl acetate ethylbenzene 2-butoxyethanol cyclohexanone				
	ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)	: The following components are listed: cyclohexanone			
	ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement)	: The following components are listed: xylene, talc / soapstone, n-butyl acetate, ethy benzene	/I		
	ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check- up)	: The following components are listed: Xylene, Ethyl benzene			
	Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)	: The following components are listed: xylene, n-butyl acetate, ethyl benzene			
В.	Regulation according to	Chemicals Control Act			
	CCA Article 11 (TRI)	: The following components are listed: Xylene including o-,m-,p- isomer, Barium and its compounds, Ethylbenzene	ł		
	Article 18 Prohibited (K- Reach Article 27)	: None of the components are listed.			
	Article 19 Subject to authorization (K-Reach Article 25)	: None of the components are listed.			
	Article 20 Restricted (K- Reach Article 27)	: None of the components are listed.			
	Article 20 Toxic Chemicals (K-Reach Article 20)	: Not applicable			
	Korea inventory	: All components are listed or exempted.			
	CCA Article 39 (Accident Precaution Chemicals)	: None of the components are listed.			

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Section 15. Regulatory information

C. <u>Dangerous Materials</u> <u>Safety Management Ac</u>	 Class: Class 4 - Flammable Liquid Item: 4. Class 2 petroleums - Water-insoluble liquid Threshold: 1000 L Danger category: III Signal word: Contact with sources of ignition prohibited
D. <u>Wastes regulation</u>	 Dispose of contents and container in accordance with all local, regional, national and international regulations.
E. Regulation according t	o other foreign laws
Safety, health and environmental regulations specific for the product	: No known specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other information

Α.	References	 Korean Ministry of Environment; Chemical Control Act Korean Ministry of Labor; Industrial Safety and Health Act NIER Notice Registry of Toxic Effects of Chemical Substances (RTECS) U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information Retrieval) ECOTOX Database System.
В.	Date of issue/Date of revision	: 11/21/2021
C.	Version Prepared by	: 2 : EHS

D. Other

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.